

Test Number: 116-19

Issue Date: 5/7/2019

6. Measurement Data (continued)

6.12. Public Exposure to Radio Frequency Energy Levels (1.1307 (b)(1))

6.12.1. SAR Test Exclusion Calculation

Requirement: Portable devices as defined in § 2.1093 of this chapter operating under Part 15 are subject to radio frequency radiation exposure requirements as specified in §§ 1.1307(b) and 2.1093 of this chapter.

For a 1-g SAR, the test exclusion result must be ≤ 3.0 .

Test Notes: The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by the following formula:

$$\text{SAR Test Exclusion} = \frac{P_{\text{MAX}}}{d_{\text{MIN}}} \times \sqrt{f_{(\text{GHz})}} \quad (1)$$

P_{MAX} mW Maximum power of channel, including tune-up tolerance

d_{MIN} mm Minimum test separation distance, mm (≤ 50 mm)

$f_{(\text{GHz})}$ GHz $f_{(\text{GHz})}$ is the RF channel transmit frequency in GHz (>100 MHz and <6 GHz)

(1) FCC OET 447498 - Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

Result: The device under test meets the exclusion requirement detailed in FCC OET 447498.

Channel:	3, 16M	3, 64M	
Input:	P_{MAX}	0.7196	mW
	d_{MIN}	5.000	mm
	$f_{(\text{GHz})}$	4.492	GHz
Test Exclusion:	0.305	0.102	
Limit Exemption:	3.000	3.000	

¹ Taken from the peak data in Section 6.5 of this test report (converted to mW).

Notes:

The device does not exceed the test limit exemption and therefore a routine SAR Evaluation is not required.

The UWB and BLE radios do not transmit simultaneously.